

this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

### *Amendments*

#### *In the Claims:*

Please cancel claims 1-41 without prejudice or disclaimer.

Please add the following new claims:

42. (New) Isolated rapid growing *E. coli* lacking endogenous plasmids.

43. (New) The rapid growing *E. coli* of claim 42, wherein said *E. coli* are *E. coli* strain W or strain C.

44. (New) The rapid growing *E. coli* of claim 43, wherein said *E. coli* are selected from a group consisting of BRL3781, BRL3784 and *recA*<sup>-</sup> derivatives thereof.

45. (New) The rapid growing *E. coli* of claim 42, wherein said *E. coli* have a growth rate that is at least 5% greater than the growth rate of *E. coli* MM294.

46. (New) The rapid growing *E. coli* of claim 42, wherein said *E. coli* have a growth rate that is at least 5% greater than the growth rate of *E. coli* DH5a.

47. (New) The rapid growing *E. coli* of claim 42, wherein said *E. coli* have a growth rate that is 5-200% greater than the growth rate of *E. coli* MM294.

48. (New) A method of cloning, comprising the steps of:

- (a) obtaining competent *E. coli*;
- (b) transforming said competent *E. coli* with at least one vector;
- (c) selecting transformed *E. coli* containing said at least one vector; and
- (d) culturing said transformed *E. coli*, wherein said cultured *E. coli* are rapid growing *E. coli*.

49. (New) The method of claim 48, wherein said rapid growing *E. coli* are *E. coli* strain W or strain C.

50. (New) The method of claim 49, wherein said rapid growing *E. coli* do not contain endogenous vectors.

51. (New) The method of claim 48, further comprising the step of isolating said recombinant vector from said transformed *E. coli*.

SUB  
B'  
CON4.

CC  
C3

SUB  
C3

52. (New) The method of claim 48, wherein the temperature at which said transformed *E. coli* are cultured is greater than 37°C.

53. (New) The method of claim 52, wherein the temperature at which said transformed *E. coli* are cultured is about 42°C.

54. (New) The method of claim 48, wherein the temperature at which said transformed *E. coli* are cultured is about 42°C.

55. (New) The method of claim 48, wherein said rapid growing *E. coli* have a growth rate that is at least 5% greater than the growth rate of *E. coli* MM294.

56. (New) The method of claim 48, wherein said rapid growing *E. coli* have a growth rate that is at least 5% greater than the growth rate of *E. coli* DH5α.

57. (New) The method of claim 48, wherein said rapid growing *E. coli* have a growth rate that is 5-200% greater than the growth rate of *E. coli* MM294.

58. (New) A method of producing a protein or peptide, comprising the steps of:

- (a) obtaining competent *E. coli*;
- (b) transforming into said competent *E. coli* a vector containing a gene encoding a protein or peptide; and

Cl  
Cont

SUB  
B7

(c) culturing said transformed *E. coli* under conditions that cause said transformed *E. coli* to produce said protein or peptide, wherein said cultured *E. coli* are rapid growing *E. coli*.

59. (New) The method of claim 58, wherein said rapid growing *E. coli* are *E. coli* strain W or strain C.

60. (New) The method of claim 59, wherein said rapid growing *E. coli* do not contain endogenous plasmids.

61. (New) The method of claim 58, wherein said rapid growing *E. coli* have a growth rate that is at least 5% greater than the growth rate of *E. coli* MM294.

62. (New) The method of claim 58, wherein said rapid growing *E. coli* have a growth rate that is at least 5% greater than the growth rate of *E. coli* DH5a.

63. (New) The method of claim 58, wherein said rapid growing *E. coli* have a growth rate that is 5-200% greater than the growth rate of *E. coli* MM294.

64. (New) A method of producing *E. coli* for cloning, comprising the steps of:

- (a) obtaining rapid growing *E. coli* having endogenous plasmids; and
- (b) curing said rapid growing *E. coli* of endogenous plasmids.

SUB  
B2  
CONT.

A1  
Cont.

65. (New) The method of claim 64, wherein said *E. coli* are *E. coli* strain W or strain C.

SUB  
B2  
CONT.

66. (New) The method according to claim 64, wherein said rapid growing *E. coli* have a growth rate that is at least 5% greater than the growth rate of *E. coli* MM294.

67. (New) The method according to claim 64, wherein said rapid growing *E. coli* have a growth rate that is at least 5% greater than the growth rate of *E. coli* DH5a.

68. (New) The method of claim 64, wherein said rapid growing *E. coli* have a growth rate that is 5-200% greater than the growth rate of *E. coli* MM294.

69. (New) A method of transforming a rapid growing *E. coli*, comprising the steps of:

- A1  
Ans
- (a) obtaining competent *E. coli*;
  - (b) incubating said *E. coli* in the presence of one or more vectors under conditions which cause said one or more vectors to be taken up by said *E. coli*; and
  - (c) culturing said *E. coli*, wherein said cultured *E. coli* are rapid growing *E. coli*.

70. (New) The method of claim 69, wherein said rapid growing *E. coli* are *E. coli* strain W or strain C.

71. (New) The method of claim 70, wherein said rapid growing *E. coli* do not contain endogenous plasmids.

72. (New) The method according to claim 69, wherein said rapid growing *E. coli* have a growth rate that is at least 5% greater than the growth rate of *E. coli* MM294.

73. (New) The method according to claim 69, wherein said rapid growing *E. coli* have a growth rate that is at least 5% greater than the growth rate of *E. coli* DH5 $\alpha$ .

74. (New) The method of claim 69, wherein said rapid growing *E. coli* have a growth rate that is 5-200% greater than the growth rate of MM294.

75. (New) A kit for cloning comprising a container containing a rapid growing *E. coli*.

76. (New) The kit of claim 75, further comprising one or more vectors.

77. (New) The kit of claim 76, further comprising at least one component selected from the group consisting of one or more restriction enzymes, one or more ligase enzymes, and one or more polymerases.

78. (New) The kit of claim 77, further comprising a container containing a recombination protein.

SUB  
B2  
CONT.

Q1  
Cont

79. (New) The kit of claim 75, wherein said rapid growing *E. coli* are competent.

80. (New) The kit of claim 79, wherein said rapid growing *E. coli* are chemically competent.

81. (New) The kit of claim 79, wherein said rapid growing *E. coli* are electrocompetent.

82. (New) The kit of claim 75, wherein said rapid growing *E. coli* have a growth rate that is at least 5% greater than the growth rate of *E. coli* MM294.

83. (New) The kit of claim 75, wherein said rapid growing *E. coli* have a growth rate that is at least 5% greater than the growth rate of *E. coli* DH5 $\alpha$ .

84. (New) The kit of claim 75, wherein said rapid growing *E. coli* have a growth rate that is 5-200% greater than the growth rate of *E. coli* MM294.

85. (New) A composition comprising rapid growing *E. coli*.

86. (New) The composition of claim 85, further comprising a component selected from the group consisting of a glycerol solution and a competence buffer.

SUB  
33

Q1  
CMT

87. (New) The composition of claim 85, further comprising at least one component selected from the group consisting of one or more DNA fragments, one or more ligase enzymes, one or more vectors, one or more buffering salts, and one or more recombination proteins.

SUB  
B4

88. (New) The composition of claim 85, wherein said rapid growing *E. coli* have a growth rate that is at least 5% greater than the growth rate of *E. coli* MM294.

89. (New) The composition of claim 85, wherein said rapid growing *E. coli* have a growth rate that is at least 5% greater than the growth rate of *E. coli* DH5 $\alpha$ .

R1  
C104

90. (New) The composition of claim 85, wherein said rapid growing *E. coli* have a growth rate that is 5-200% greater than the growth rate of *E. coli* MM294.

91. (New) A method of making competent rapid growing *E. coli*, comprising the steps of:

- (a) obtaining rapid growing *E. coli*; and
- (b) treating said rapid growing *E. coli* to make it competent.

92. (New) The method of claim 91, further comprising the step of curing said rapid growing *E. coli* of endogenous vectors.



93. (New) The method of claim 91, wherein said rapid growing *E. coli* are *E. coli* strain W or strain C.

94. (New) The method of claim 91, wherein said rapid growing *E. coli* have a growth rate that is at least 5% greater than the growth rate of *E. coli* MM294.

95. (New) The method of claim 91, wherein said rapid growing *E. coli* have a growth rate that is at least 5% greater than the growth rate of *E. coli* DH5 $\alpha$ .

96. The method of claim 91, wherein said rapid growing *E. coli* have a growth rate that is 5-200% greater than the growth rate of *E. coli* MM294.

97. (New) Competent rapid growing *E. coli* produced according to the method of claim 91.

98. (New) Competent rapid growing *E. coli* produced according to the method of claim 92.

99. (New) Competent rapid growing *E. coli* produced according to the method of claim 93.

100. (New) Competent rapid growing *E. coli* produced according to the method of claim 94.

SUB  
B4  
CONT.

A1  
CONT

Sub  
By  
Court  
Al  
Ant

101. (New) Competent rapid growing *E. coli* produced according to the method  
of claim 95.

102. (New) Competent rapid growing *E. coli* produced according to the method  
of claim 96.

---